

## IEP Science Highlights

### Quarterly Directors Update

March 2013

#### **Fish Monitoring Highlights** (see also <http://www.water.ca.gov/iep/activities/monitoring.cfm>)

- Fall abundance and distribution of pelagic Delta fishes: The increases observed in fall 2011 did not continue – 2012 fall abundance indices based on the long-term “fall midwater trawl” survey for all four “POD” fish species were back in the low “POD range” and threadfin shad reached a record low level. Results of additional collaborative fall sampling to evaluate monitoring “gear efficiency” (FWS-DFW), fine-scale delta smelt distribution using the “SmeltCam” (BOR-DWR-DFG- SFWCA-SureWorksLLC), and the effects of “First Flush” winter storms (USGS-FWS-DFG-UCD-SFSU) will be presented at the IEP Annual Workshop.
- Adult delta smelt: The CDFW has conducted monthly “Kodiak Trawl” (SKT) sampling for adult delta smelt since 2002. In 2013, monthly sampling started on January 7 and will conclude in mid-April. So far, most adult delta smelt have been found in the Suisun and North Delta regions and evidence for spawning was first seen in early March. CDFW is now providing annual adult delta smelt indices based on SKT results. The 2012 adult delta smelt index of 147 was the highest on record. The median adult index for 2003-2012 is 39.
- Larval longfin and delta smelt: The “smelt larva survey” was initiated by CDFW in 2009. In 2013, biweekly sampling started on January 2 and concludes on March 20. Larval longfin smelt were found during each survey and at all sampling sites except for a site near Stockton. The “20-mm survey” for larval-juvenile delta smelt started on March 11.
- Winter fish “salvage” at the CVP & SWP pumps: As of 3/10, only 4 longfin smelt, but 252 adult delta smelt (69% of the 2013 USFWS incidental take limit of 362) were salvaged at the pumps since 12/1/2012. CVP & SWP exports have been curtailed since 2/19/2012 to lower entrainment risk for adult delta smelt. Protective actions for salmon were triggered in early December 2012 and again on March 9, 2013, according to the NMFS BiOp requirements.

#### **Upcoming events** (see <http://www.water.ca.gov/iep/activities/calendar.cfm> for more)

- 2013 IEP Annual Workshop: April 24-26, Lake Natoma Inn, Folsom, with CWEMF (4/22-24). This year’s focus is on ecosystem restoration, collaborative science, and monitoring.
- Review of IEP Delta Juvenile Fishes Monitoring Program (DJFMP): Public review meeting with 5-member Science Advisory Group on June 4-5, 2013, in Sacramento.

#### **Other IEP Science Activities**

- IEP Management, Analysis, and Synthesis Team (MAST) and Fall Low Salinity Habitat (FLaSH) studies: Completed final revision of 2012 FLASH report. Working on more comprehensive MAST report; completion date is unclear due to too many other priority assignments for MAST members. FLASH was highlighted and discussed in legislative/executive science briefings organized by COMPASS (<http://www.compassonline.org/>) in Sacramento, CA (2/5/2012) and Washington, DC (Executive Office of the President, 10/11/2012).
- Science Integration: IEP staff continues to actively participate in WQMC Estuaries Work Group, Delta RMP development, and planning and/or implementation of various multidisciplinary science workshops and activities (e.g. on Predation, Contaminant “Biosensors,” Nutrients, delta smelt monitoring, BDCP, Ecosystem Restoration, Delta Science Plan, etc.). An experimental project testing rearing of juvenile salmon in flooded rice fields in the Yolo Bypass led by DWR and UCD has recently received considerable media attention (see e.g. <http://www.sacbee.com/2013/02/19/5201771/rice-field-salmon-study.html> ).